NOTICE: This document contains correspondence generated during peer review and subsequent revisions but before transmittal to production for composition and copyediting:

- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)*

*The corresponding author has opted to make this information publicly available.

Personal or nonessential information may be redacted at the editor’s discretion.

Questions about these materials may be directed to the Obstetrics & Gynecology editorial office:

obgyn@greenjournal.org.
RE: Manuscript Number ONG-23-308

Radiofrequency Ablation for Treatment of Uterine Fibroids: Review of the Manufacturer and User Facility Device Experience (MAUDE) Database

Dear Dr. Young:

Thank you for sending us your work for consideration for publication in Obstetrics & Gynecology. Your manuscript has been reviewed by the Editorial Board and by special expert referees. The Editors would like to invite you to submit a revised version for further consideration.

If you wish to revise your manuscript, please read the following comments submitted by the reviewers and Editors. Each point raised requires a response, by either revising your manuscript or making a clear argument as to why no revision is needed in the cover letter.

To facilitate our review, we prefer that the cover letter you submit with your revised manuscript include each reviewer and Editor comment below, followed by your response. That is, a point-by-point response is required to each of the EDITOR COMMENTS (if applicable), REVIEWER COMMENTS, and STATISTICAL EDITOR COMMENTS (if applicable) below.

The revised manuscript should indicate the position of all changes made. Please use the "track changes" feature in your document (do not use strikethrough or underline formatting).

Your submission will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by 03/17/2023, we will assume you wish to withdraw the manuscript from further consideration.

EDITOR COMMENTS:

Dear Dr. Young and coauthors:

Thank you for your submission. Your paper has gone through our review and editorial discussion process and we would like to give your paper additional consideration. Due to the nature of the methodology and content, we would like to offer publication as a Research Letter. If you agree, please revise your submission to conform to the requirements of a Research Letter. This would be considered a revision, and would go through the usual revision process, and would not be treated as a new review.

Please let me know if you have any questions.
We look forward to your revised version.

Thank you -

Please also note the following:

[Insert comments from Editor here or delete this sentence if nothing]

* Help us reduce the number of queries we add to your manuscript after it is revised by reading the Revision Checklist at https://journals.lww.com/greenjournal/Documents/RevisionChecklist_Authors.pdf and making the applicable edits to your manuscript.

* Figure 1: Please upload as a figure file on Editorial Manager.
REVIEWER COMMENTS:

Reviewer #1:
This article presents a summary of complications reported to the MAUDE database regarding radiofrequency ablation of uterine fibroids.

This topic is of interest to the readers of the journal. The paper highlights the value of post-market surveillance of new technology as well as the purported incidence of serious complications from this treatment.

I found lines 120-123 confusing. I ultimately understood that this is a comparison between the classifications of event type supplied by the MAUDE submission versus the authors' classifications. I think that section could be clarified.

Table 4 could be improved. I believe the "management" column describes the various managements reported for each diagnosis. However, the "management" numbers do not add up to the row number for each diagnosis.

Reviewer #2:
This study is a review of MAUDE database in regard to malfunction and complications related to transcervical and laparoscopic RFA devices intended to treat uterine fibroids. As the authors correctly pointed out, there is a paucity of information regarding the safety of RFA devices for treatment of fibroids. This study is timely, comprehensive, provides a useful and valuable review. It seems that inclusion criteria were broad enough to capture all the events. The authors analyzed them as completely as MAUDA database allowed.

The main weakness of the study is related not to the methodology but rather to MAUDE database itself. The authors appropriately address its' shortcomings in the limitations section.

I have a few stylistic comments that do not affect my positive impression of the article.
line 51 - consider an earlier reference describing initial trials of RFA system
lines 127-135 - consider modifying since currently, it's restating the table
lines 212-218 - the conclusion currently sways somewhat off the initial aim - evaluation of adverse events. I am not sure about the reason to link morcellation and mesh to this device. I would suggest staying true to the aims expressed. On a personal level I agree that MAUDE is flawed and I encourage authors to write an opinion piece on the subject (granted I'm sure there are many already).

Reviewer #3:
This manuscript performs a review of the FDA MAUDE database to search for reported adverse events from 2012-2022 of the laparoscopic (Acessa) and transcervical (Sonata) radiofrequency ablation devices used to treat uterine myomas. The authors identify 60 unique reports, almost all from lsc RFA and summarize the complications, which include infection (primarily uterine), bowel injury, postop pain, uterine rupture and bladder injury. 7 unplanned hysterectomies were identified, performed for infection, SBO, VVF and vaginal hemorrhage.

There were also a few malfunction events, some of which impeded the physician from completing RFA.

The authors also sought manufacturer estimates for the number of units sold to attempt to understand the adverse event rate, which was estimated at 1:127 for lsc RFA and 1:2000 for TC RFA.

This study design has a number of major limitations, of which the authors are acutely aware. Underreporting in post-marketing surveillance is likely to be a major problem. I suspect that postop pain is grossly underreported, as are many infections that can be managed medically. The authors note that physician awareness of the MAUDE database is also a barrier to having more accurate reporting.

The authors are right to call for more formalized registries. Mandated reporting of outcomes during early usage following FDA approval as well as more detailed data collection in the existing database would help a lot.

It would be helpful to perform some literature review (as available) to estimate how common underreporting of various categories of procedural complications are, and how this may help provide a more realistic estimate of complications related to the RFA devices. Similarly, it would be helpful to clarify from the device manufacturers or use some other published literature to address how accurately the number of units sold reflects the number of procedures performed.

The authors could also compare the adverse events reported in their postmarketing review to the more rigorously analyzed and reported findings in the studies used to justify approval for the respective devices (such as those listed on https://www.clinicaltrials.gov/ct2/results?term=NCT00874029) to identify potential discrepancies.

Overall this is an interesting approach to studying and potentially estimating the rate of the adverse events following
approval of new surgical devices. It remains to be seen how reliable these estimates of complications are, but they might represent a lower bound.

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Sincerely,
Vivian W. Sung, MD, MPH
Deputy Editor, Gynecology

The Editors of Obstetrics & Gynecology

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/ong/login.asp?a=r). Please contact the publication office if you have any questions.
March 8, 2023

Dear Editors of Obstetrics & Gynecology,

Thank you for review of our submission. We appreciate all feedback from the Editor and Reviewers. We feel fortunate to be offered publication as a Research Letter by Dr. Sung and therefore have made the necessary changes in our manuscript.

Please see our responses to the thoughtful statements by the reviewers.

We appreciate your consideration of our manuscript and look forward to your reply.

Sincerely,

Riley Young, MD

EDITOR COMMENTS:

Dear Dr. Young and coauthors:

Thank you for your submission. Your paper has gone through our review and editorial discussion process and we would like to give your paper additional consideration. Due to the nature of the methodology and content, we would like to offer publication as a Research Letter. If you agree, please revise your submission to conform to the requirements of a Research Letter. This would be considered a revision, and would go through the usual revision process, and would not be treated as a new review.

Response: Thank you for your review and offer for publication as a Research Letter. We have made the necessary revisions to conform to the requirements of the Research Letter.

Please let me know if you have any questions. We look forward to your revised version.

Thank you -

Please also note the following:

* Help us reduce the number of queries we add to your manuscript after it is revised by reading the Revision Checklist at https://journals.lww.com/greenjournal/Documents/RevisionChecklist_Authors.pdf and making the applicable edits to your manuscript.

Response: The Checklist has been reviewed and all relevant aspects are appropriately addressed in our manuscript.
REVIEWER COMMENTS:

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I found lines 120-123 confusing. I ultimately understood that this is a comparison between the classifications of event type supplied by the MAUDE submission versus the authors' classifications. I think that section could be clarified.

Response: Thank you for identifying this point of confusion. We have revised this explanation in the text. Lines 71-73 explain the method of re-classification. After explaining this process, like 80 reports the final size of each group.

Table 4 could be improved. I believe the "management" column describes the various managements reported for each diagnosis. However, the "management" numbers do not add up to the row number for each diagnosis.

Response: Given the limitation in number of tables in the Research Letter format, we have opted to remove Table 4 as it was not clearly designed.

Reviewer #2:
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I have a few stylistic comments that do not affect my positive impression of the article. line 51 - consider an earlier reference describing initial trials of RFA system
Response: Given the word limitation in the Research Letter format, we had to significantly reduce the amount of background information provided.

lines 127-135 - consider modifying since currently, it's restating the table

Response: We have revised this portion, now lines 85 – 90.

lines 212-218 - the conclusion currently sways somewhat off the initial aim - evaluation of adverse events. I am not sure about the reason to link morcellation and mesh to this device. I would suggest staying true to the aims expressed. On a personal level I agree that MAUDE is flawed and I encourage authors to write an opinion piece on the subject (granted I’m sure there are many already).

Response: As suggested, current lines 125-128 have been edited to stay in line with our initial aims.

Reviewer #3:
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It would be helpful to perform some literature review (as available) to estimate how common underreporting of various categories of procedural complications are, and how this may help provide a more realistic estimate of complications related to the RFA devices. Similarly, it would be helpful to clarify from the device manufacturers or use some other published literature to
address how accurately the number of units sold reflects the number of procedures performed.

Response: I agree that it would be very interesting to dive into the literature regarding underreporting of adverse events as well as discuss with manufacturers how accurate it is to use units sold as a surrogate for actual number of procedures performed. Unfortunately, due to the limitations of the Research Letter format we opted to remove the manufacturer related data for this manuscript.

The authors could also compare the adverse events reported in their postmarketing review to the more rigorously analyzed and reported findings in the studies used to justify approval for the respective devices (such as those listed on https://www.clinicaltrials.gov/ct2/results?term=NCT00874029) to identify potential discrepancies.

Response: This is an excellent thought and would be a great addition. However, due to the limitations of the Research Letter format we chose to prioritize other aspects of the manuscript.

Overall this is an interesting approach to studying and potentially estimating the rate of the adverse events following approval of new surgical devices. It remains to be seen how reliable these estimates of complications are, but they might represent a lower bound.